SOLVING A TEENAGER'S MYSTERIOUS STOMACH PAIN

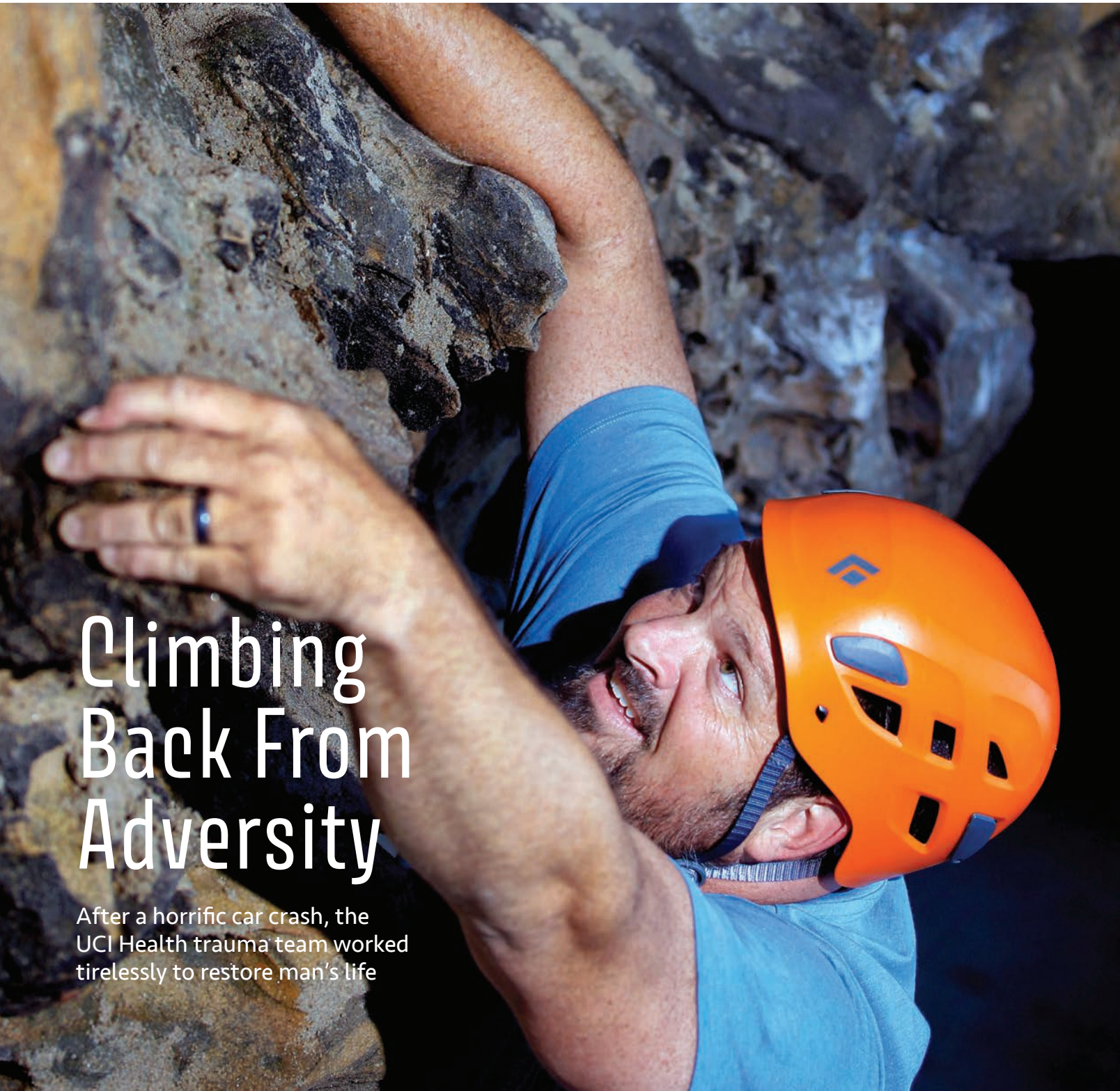
BONE MARROW TRANSPLANT PROGRAM THRIVES IN FIRST YEAR

UCI Health

FALL 2021

live well

SMARTER HEALTHCARE FOR SOUTHERN CALIFORNIA



Climbing Back From Adversity

After a horrific car crash, the UCI Health trauma team worked tirelessly to restore man's life

DREAM TEAM

When I consider the characteristics that define UCI Health, teamwork is one of the first that comes to mind. In the rapidly evolving and complex world of medicine, health professionals know it's inefficient to work in silos. Progress is made because scores of individuals put their heads together to come up with the best possible ideas and solutions.

In this issue of *Live Well*, we celebrate the unwavering teamwork that has elevated UCI Health to the forefront of medicine. As our region's only academic health system, our world-class physicians and scientists work hand in hand with experts in their respective fields on the Irvine campus and across the globe. We work together in order to deliver the finest, most innovative healthcare to you and your family.

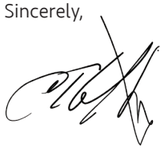
UCI Health patients benefit because their doctors are part of multidisciplinary teams that meet regularly to discuss challenging cases and share information and resources that ensure thorough, thoughtful evaluations. For example, on page 12 learn about an Orange County teenager whose acute digestive pain had derailed her life. Almost devoid of hope, she turned to UCI Health, where our leading specialists in gastroenterology, vascular imaging, vascular surgery and laparoscopic surgery conferred to diagnose her rare condition and develop a plan to restore her health. Because of this vast range of expertise and our advanced technologies, we were able to treat her successfully when others could not.

On page 6, you'll read about an Orange County man who arrived at our Level I adult trauma center, the only one in Orange County, with multiple life-threatening injuries from a violent automobile crash. Working together seamlessly, the UCI Health trauma team — including critical care surgeons, orthopaedic trauma surgeons, urologic surgeons and rehabilitation specialists — made it possible for him to hit Colorado ski slopes months later.

Teamwork extends to our community as well. On page 4, we highlight a gift from the Chao family that will help fund a new cancer center and outpatient facility that is scheduled to open in 2023 in Irvine. Because of the generosity of these and other philanthropic partners, the UCI Health brand of healthcare soon will be easily accessible to residents of Irvine and south Orange County.

Successful teamwork takes time, diligence, expertise and cooperation. We make the extra effort because it is what's best for you and our community.

Sincerely,



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Chief Executive Officer
UCI Health

UCI Health

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DESIGN, EDITORIAL & CONTRIBUTORS
Moon Tide Media

ART DIRECTOR
Michelle Villas

GRAPHIC DESIGNER
Nikki Smith

EDITOR
Shari Roan

For comments or questions, contact
UCI Health Marketing & Communications at
333 City Blvd. West, Suite 1250, Orange, CA 92868
714-456-5496

Information in this magazine is not meant to replace the advice of your physician.

100 YEARS AFTER INSULIN: ADVANCING ISLET CELL TRANSPLANTS

WRITTEN BY SHARI ROAN

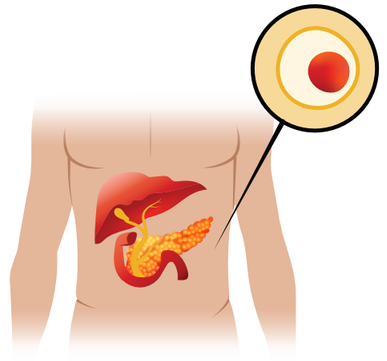
The 1921 discovery of insulin to treat type 1 diabetes didn't stop scientists from trying to make life easier for the millions of people worldwide — including 1.6 million people in the U.S. — who are affected by the disorder. In recent years, pancreatic islet cell transplants have offered an alternative to insulin injections. But islet cell transplantation poses challenges for patients, including the use of harsh immunosuppressant medications following the transplant.

UCI Health researchers are not content with that less-than-optimal approach. They have developed a potential method to transplant pancreatic islet cells without triggering the need for ongoing immunosuppressant drug therapy.

In a recent paper published in the journal *Communications Biology*, a team led by Jonathan Lakey, PhD, a UCI professor of surgery and biomedical engineering, describes a biomaterial they developed to encapsulate pancreatic islet cells so the cells don't trigger the body's immune response.

"Islet cell transplantation is the most effective way, physiologically, to restore blood glucose control," Lakey says. "Glucose pumps and continuous glucose monitors only prevent the fluctuations in blood sugar on the surface level. The best approach is to replace the insulin-producing cells. But once you transplant tissue from one individual to another individual, you create an immune system response that sets off a process of the body destroying the foreign cells."

Immunosuppressant medications can halt the immune system's response to the foreign cells, but this approach is not ideal, he says. "Immunosuppression is a lifelong commitment with significant risks. Our concept is to use a biomaterial to contain and protect transplanted cells from the body."



MAKING INSULIN

- **Purified pancreatic islet cells are encapsulated in biomaterial.**
- **The cells are infused under the skin.**
- **New blood vessels form to connect to the islet cells.**
- **The islet cells release insulin.**

Lakey and Reza Mohammadi, who earned a doctorate in materials science and engineering at UCI last year while working in Lakey's lab, helped develop a hybrid alginate — a material derived from seaweed. UCI's hybrid formulation releases exosomes (vesicles that transport proteins and other substances between cells) derived from human umbilical cord mesenchymal stem cells. The exosomes suppress the immune response, enabling the transplanted cells to function much longer.

In their study, Lakey and his colleagues showed that when implanted in diabetic mouse models, the encapsulated pancreatic islet cells did not evoke an adverse response and regulated blood glucose for more than 180 days without the need for insulin or anti-rejection therapies.

"The encapsulation is a stealth device, so the body doesn't recognize it as foreign," Lakey says. "The next step is to secure funding to take this technology into larger animals and, eventually, into humans."

At the University of Alberta years ago, Lakey co-developed a protocol showing the feasibility of pancreatic islet cell transplantation to treat type 1 diabetes.

"That research generated a huge amount of interest. It has taken us more than 20 years to get over the hurdle of dealing with the immune response," he says. "We're very excited about the potential of this encapsulation technology. It's early but very promising."

The challenging nature of the work — supported by the Juvenile Diabetes Foundation, the Sue & Bill Gross Stem Cell Research Center and other groups — requires teamwork. Colleagues in the schools of engineering, medicine, biological sciences, and pharmacy and pharmaceutical sciences have contributed to this potential breakthrough, Lakey notes. "UCI has exceptional facilities and a faculty that embraces collaboration." ■

Learn more about islet cell and stem cell research at stemcell.uci.edu

CHAO FAMILY GIFT SUPPORTS NEW CANCER AND OUTPATIENT CARE CENTER IN IRVINE

A new Chao Family Comprehensive Cancer Center and outpatient facility, slated to open in 2023, will further UCI Health efforts to expand cancer prevention and screening, address healthcare disparities and provide equitable access to specialty cancer care throughout Orange County and the region. The center is named after the Chao family, who have committed $50 million since 1995 to UCI Health to advance cancer care.

The family's latest gift will name the cancer center at the new UCI Medical Center — Irvine, expanding access to leading-edge cancer treatments and therapies, promising clinical trials and world-class cancer care driven by the latest in precision medicine.

"Few families have been as generous in support of their fellow residents of Orange County as the Chao family," says UCI Chancellor Howard Gillman. "This latest extraordinary gift is testament to their belief in the power of academic medicine to lead the fight against cancer and provide the best and most up-to-date care to cancer patients."

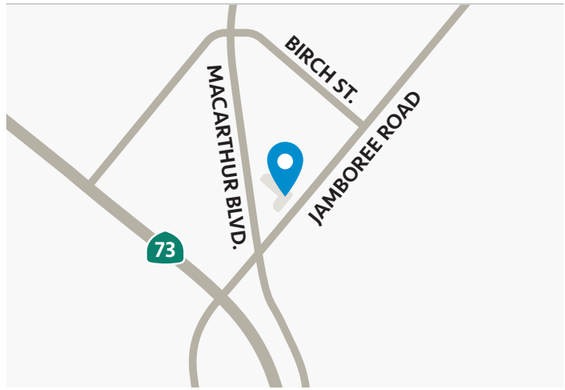
The Chao Family Comprehensive Cancer Center and Ambulatory Care will be one of three facilities at the new $1.2 billion medical complex adjacent to the UCI campus; the others are a 144-bed acute care hospital with an emergency department and the Center for Advanced Care.

The cancer care center is strategically located at the new medical center campus in Irvine to allow patients to receive multidisciplinary care by interprofessional and integrative teams working together to apply the latest innovations from university-backed clinical research.

Since their first gift 26 years ago, three generations of Chaos have supported the growth of the UCI Health cancer program at the Chao Family Comprehensive Cancer Center in Orange, including expanding clinical care, advancing research facilities and last year's launch of Orange County's only adult hematopoietic stem cell transplant and cellular therapy program.

It remains the only Orange County-based comprehensive cancer center and one of only 51 designated by National Cancer Institute in the United States as meeting the highest standards and commitment to excellence in cancer research and clinical care.

"Doing good in our community has always been very important to our family," says Allen Chao. "We are proud to continue our partnership with UCI and to know that community members from all walks of life benefit from the lifesaving treatments offered here."



PRIMARY CARE NEAR YOU

UCI Health is proud to announce the launch of a primary care and women's health complex in Newport Beach this fall. The location is the latest addition to the UCI Health outpatient network and highlights our commitment to offer top-tier medical care at convenient locations.

UCI Health — Newport Beach MacArthur will provide unparalleled care in:

- Cardiology
- Dermatology
- Gastroenterology
- Primary care
- Rheumatology
- Women's health, including gynecology

To learn more or make an appointment, call 949-445-8768 or visit ucihealth.org/macarthur

UCI HEALTH ACUTE CARE SURGERY TEAMS HONORED FOR EXCELLENCE

UCI Medical Center's inpatient acute care surgery units have earned the silver-level Beacon Award for Excellence from the American Association of Critical-Care Nurses (AACN) in recognition of exceptional patient care and a healthy work environment. The award is the latest in a long tradition of honors reflecting UCI Health nursing excellence.

The Beacon Award for Excellence recognizes caregivers who have successfully improved patient outcomes and adhered to AACN's six Healthy Work Environment Standards.

"The acute surgery units are committed to establishing a supportive and positive work environment," says Brooke Baldwin, DNP, RN, chief nursing executive of UCI Health. "Nurse manager Thao Vo and the acute care nursing teams demonstrate their dedication to patients every day — they richly deserve this recognition."

The Beacon Award reflects excellence in teamwork aimed at providing high-quality, patient-centered care and outcomes, Baldwin says. The state-of-the-science units in UCI Medical Center's Douglas Hospital are equipped with the most advanced monitoring equipment to ensure that each patient receives the best possible care.

UCI MEDICAL CENTER RECOGNIZED AS ONE OF AMERICA'S BEST HOSPITALS

For the 21st consecutive year, *U.S. News & World Report* has recognized UCI Medical Center as one of America's Best Hospitals. The annual rankings identify hospitals that excel in treating the most challenging patients and conditions. This year, the report highlights the excellence of UCI Health programs in gynecology (No. 24) and geriatrics (No. 44) among similar programs nationally. The medical center is ranked No. 8 in the Los Angeles metropolitan region.

"We're pleased to be recognized again as one of America's Best Hospitals," says Chad T. Lefteris, chief executive of UCI Health. "Our dedicated team of physicians, nurses, therapists and support staff reflect the unparalleled level of care only an academic health system can provide. UCI Health is an indispensable healthcare resource in Orange County, and we will continue to bring personalized, leading-edge care to our community."

In addition to nationally ranked programs, UCI Health services in cancer, gastroenterology (GI) and GI surgery, neurology and neurosurgery, orthopedics, pulmonary and lung surgery, and urology are rated as high performing.

For more than two decades, UCI Medical Center is the only Orange County hospital consistently rated among America's best by *U.S. News*. The annual Best Hospitals rankings and ratings are designed to assist patients and their doctors in making informed decisions about where to receive care for challenging health conditions and common elective procedures.

Rock Solid Again

The trauma center's seamless teamwork and relentless efforts give a Santa Ana father back his active life.

WRITTEN BY MELANIE ANDERSON
PHOTOGRAPHED BY KAREN TAPIA

On a crisp February day in Breckenridge, Colo., Brandon Gaidano conquered a black diamond on his first ski run of the day. It was a hard-earned triumph. Nine months earlier, he endured multiple surgeries to repair severe pelvic fractures, a ruptured bladder, chest injuries and a broken ankle.

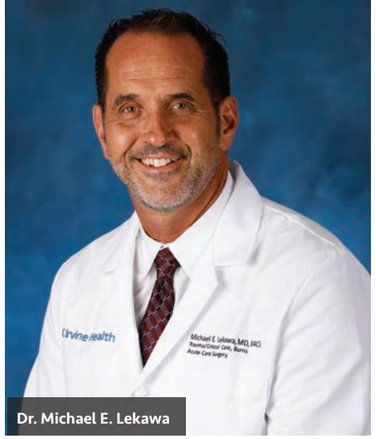
"When ski season came, it was like nothing ever happened," the 44-year-old Santa Ana father marveled. "I never thought I'd be able to walk again. I'm so very grateful."

Gaidano was leaving a bagel shop on a Saturday morning in May 2020 when his pickup truck was T-boned on the driver's side by an impaired street racer going more than 100 miles an hour. Paramedics extracted him from his crumpled vehicle. Given the severity of his injuries, they rushed him to UCI Medical Center — Orange County's only Level I adult and Level II pediatric trauma center.

"When they wheeled me into the main emergency room, I remember everybody was cutting my clothes off and I was trying to figure out what was going on," he says.

After a series of X-rays and other tests, the trauma team doctors told Gaidano he needed surgery to repair his pelvis. They also worried about internal bleeding and injuries to his chest and ankle. "Just lying there, I'm thinking, 'How can this be happening to me?'" he recalls. "I was just going to get breakfast!"

Recovered from myriad traumatic injuries, Brandon Gaidano savors rock climbing at Pirate's Cove Beach in Corona del Mar.


Dr. Michael E. Lekawa


Dr. John A. Scolaro

"We mobilize and do whatever is needed to take care of every patient like they're family."

Each year, UCI Medical Center treats thousands of severely injured trauma patients. When a patient like Gaidano arrives, the trauma and critical care surgery team responds immediately to resuscitate and stabilize the patient. Even with a crush of COVID-19 cases during the pandemic, the trauma team is relentless in its stop-at-nothing approach to caring for patients.

Saving lives around the clock

"Our No. 1 priority is saving life," says Dr. Michael E. Lekawa, director of the trauma center. "We have developed a smooth, systematic approach for these very complicated cases where patients have multiple life-threatening injuries and need a multidisciplinary team of doctors."

The core trauma team, which includes surgeons specialty-trained in trauma and critical care, takes over the patients' care from the moment they arrive in the emergency department until they are able to leave the hospital."

UCI Medical Center is also the only trauma center in Orange County where every trauma surgeon is a board-certified surgical intensivist with an extra level of training to provide comprehensive care to critically ill patients across all surgical specialties and all age groups.

"Fortunately, Brandon didn't have a brain injury," says Lekawa, Gaidano's attending surgeon. "But he did have significant chest injuries, including multiple rib fractures, a collapsed lung that needed draining and a lung contusion. In addition, we had to manage internal bleeding in his belly, his pelvic fractures and abdominal trauma."

Gaidano also had a ruptured bladder and a broken ankle, but those injuries would have to wait.

"We worked to stop the bleeding from the pelvic fractures and stabilize the patient, then the orthopaedic trauma team took charge," says Lekawa, a UCI School of Medicine professor and chief of the Department of Surgery's Division of Trauma, Critical Care, Acute Care and Burn Surgery.

The UCI Health team has a deep bench of orthopaedic trauma surgeons trained in pelvic and hip socket surgery. At least one is always ready to respond to trauma patients.

"The pelvis is a deep, complex bone surrounded by blood vessels that can result in life-threatening bleeding when severely injured," says Dr. John A. Scolaro, chief of orthopaedic trauma services for UCI Health. "The skill and confidence to operate in this anatomic area is something surgeons can only develop with additional training. No other Orange County hospital has access to multiple fellowship-trained orthopaedic trauma surgeons who can literally step in at any time."

Scolaro was enjoying a Saturday breakfast with his family when Lekawa called him about Gaidano, who was bleeding and unstable. Scolara hustled to the medical center, a few minutes away, to join the rest of the surgical team. "We have fully functioning trauma operating rooms on weekends and around the clock. Dr. Lekawa and the team got the patient as prepared as possible, then I was able to make multiple small incisions and provide much-needed stability to his pelvis."

Scolaro's work wasn't finished, however. "At that point, it was about saving Brandon's life."

As soon as he stabilized Gaidano's pelvis, a team of UCI Health urologists began repairing the injured bladder. "The urologists made an incision in the front part of his pelvis, which we used 48 hours later when we finished repairing his pelvis," says Scolaro, who went on to operate on the patient's broken ankle that same day.

Seamless teamwork

Gaidano was taken to the surgical intensive care unit to recover. These were the early days of the COVID-19 pandemic, so his family couldn't visit. His primary nurse became his advocate. "Every time doctors would come in, she would call my wife on speakerphone so my wife would know what was going on."

After five days, he was transferred to the hospital's acute rehabilitation unit. "That was a big relief, to be able to stay at UCI. I felt comfortable because if something were to happen, people would know exactly what was going on."

Final stabilization of Gaidano's pelvic fractures required additional screws as well as pins and bars outside the skin, a device called an external fixator. The severity of his injuries limited his ability to move for about six weeks. He was thankful for his ground-floor hospital room and window, which allowed him to see his wife and then 7-year-old daughter as they talked on the phone.

Even with COVID-19 taking a toll on hospital staff, he also felt the support of his caregivers and the entire staff, including the chaplain, Pirjo Carlisle.


Brandon Gaidano, with daughter Nicolette, 8, was able to ski nine months after a violent car crash.

"Everybody I interacted with at any level was happy to be there. And they genuinely seemed to care."

That shared commitment to saving patients' lives and restoring them to health is the key to their seamless teamwork and excellent patient outcomes, Lekawa and Scolaro believe.

"Everyone is working toward a common goal. We mobilize and do whatever is needed to take care of every patient like they're family," Scolaro says.

This all-in approach accounts for the trauma center's consistently top-level results, Lekawa says. "I've been doing this for 25 years, and it's taken a long time to build a program of this level of excellence. I'm proud to say that the people of Orange County have a trauma center able to give their loved ones the best possible outcomes."

Improving little by little

While in the ICU, Gaidano wondered if he would ever walk — or work — again. The screws within his pelvis, combined with the external fixator, provided the stability needed to allow his fractures to heal correctly. By the time he went home almost a month later, he had increased the range of motion in his legs and was gaining confidence. After two weeks at home, the external device was removed and his physical therapist helped him begin using a walker.

"Little by little, I made progress," Gaidano says, transitioning to outpatient physical therapy and exercise at home. Three months after the crash, he started a new full-time job with a home appliance company. "By 3½ months out, I was able to do a little jog and 10 jumping jacks in my backyard," he says. "I was crying, I was so happy. I was like, 'It hurts, but I'm going to be OK.'"

His recovery proceeded so well that Scolaro declared him "good to go" when Gaidano asked permission to go skiing for his birthday. "I told him that if he went, he just had to send me a picture."

Gaidano still feels some lingering pain on his left side and numbness, which he was told will improve over time. "I'm about 90% to 95% back to normal."

These days, he takes his family rock-climbing, rafting and water-skiing. He's a fixture at his daughter's gymnastics, acting and piano events. "I stay positive and I don't take things for granted anymore," Gaidano says. "I feel so lucky." ■

Learn more about trauma services at ucihealth.org/trauma

Dr. Stefan O. Ciurea heads the Hematopoietic Stem Cell Transplant and Cellular Therapy Program at UCI Health.

During the program's first year, Ciurea and his team treated more than two dozen stem cell transplant patients, including Sean Ramos, at right.

SAVING LIVES WITH STEM CELLS

The Hematopoietic Stem Cell Transplant and Cellular Therapy Program thrives during its inaugural year.

WRITTEN BY NANCY BRANDS WARD | PHOTOGRAPHED BY MICHAEL DER

With more than two dozen bone marrow transplants completed, the UCI Health stem cell transplant program is firmly established just a year since its launch. Directed by Dr. Stefan O. Ciurea, a nationally recognized leader in stem cell transplants and anticancer natural killer cells, the Hematopoietic Stem Cell Transplant and Cellular Therapy Program at UCI Health Chao Family Comprehensive Cancer Center provides lifesaving treatment for patients with bone marrow failure or blood cancers. We asked Ciurea about the new era in cellular therapies and how his program is evolving.

Why is it important for the cancer center to have a stem cell program?

Hematopoietic stem cell transplantation is a lifesaving procedure for patients with advanced blood cancers. We treat a wide variety of patients with acute leukemias, lymphomas and multiple myeloma, chronic leukemias, myeloproliferative neoplasms and nonmalignant diseases, such as aplastic anemia. It's a complex and risky procedure that requires considerable expertise, a highly coordinated team effort and cutting-edge technology. That's why it's usually performed at academic medical centers, and ours is the only adult program in Orange County. Stem cell transplantation can require a lengthy hospitalization and frequent follow-up visits. This center allows our patients to receive outstanding care close to home.

What are the strengths of the program?

We aim to provide a personalized approach to patient care to optimize transplant outcomes, using the best available approaches while building on current knowledge. Stem cell transplantation requires expert skill in a range of specialties. The outstanding team we've assembled includes specialists in transplantation and hematological malignancies, radiation oncology, surgical oncology, radiology, pathology and other specialties who provide thorough evaluations of our patients. Moreover, the forward-looking research program in stem cell transplant and cellular therapy we're building is designed to develop new treatments through novel basic research and clinical trials.

How are the patients you've treated doing, and how are you refining the treatments from what you've learned?

Since May 2020, more than two dozen patients have received stem cell transplants in our program. Outcomes have been excellent, although it's still early in follow-up. We have published extensively on improving aspects of patient care in transplantation, and we will apply much of that experience and create new approaches to treating our varied patient groups. I believe we will continue to significantly improve transplant outcomes.

What research into CAR T-cell therapy will you conduct?

We're excited about innovative new treatments like CAR T-cell therapy, which involves modifying T cells collected from the blood to produce chimeric antigen receptors (CARs), then infusing them back to the patient to find and destroy cancer cells carrying that antigen. One of several upcoming clinical trials will investigate using CAR T-cells against the B-cell maturation antigen (BCMA) in myeloma patients before they receive an autologous stem cell transplant. The goal is complete remission or a deeper remission, which has been associated with better transplant outcomes.

How can therapies using natural killer (NK) cells help with cure rates?

NK cells are lymphocytes with potent anticancer properties that are present in small numbers in the blood. Using them after transplant has been shown to prevent disease relapse. Using them in patients who were unresponsive to multiple lines of therapy can put them into remission. We hope to conduct a phase 3, multicenter, randomized trial to demonstrate efficacy of this therapy and obtain the approval from the Food and Drug Administration for its use. This is groundbreaking work. For the first time since the beginning of transplantation in the 1960s, we might find a way to decrease the relapse rate.

What are the plans for expanding capabilities to support the program?

To support the extraordinary growth we expect to see over the next few years, we're building a cellular therapy lab to process stem cells and cellular therapy products for our patients. UCI Health is also building a facility where we hope to start manufacturing NK cells very soon. ■

Learn more about cellular therapies at ucihealth.org/bmt

Never Give Up

Believing a teen's complaint of mysterious and severe stomach pain, UCI Health doctors vowed to help.

WRITTEN BY SHARI ROAN | PHOTOGRAPHED BY MICHAEL DER

The low point for Kayden Lincoln and her family came just before the holidays in 2020 when a pediatric gastroenterologist dismissed Kayden's severe weight loss and months of stomach pain as merely a balky digestive system. Do some jumping jacks after eating, the doctor told the 16-year-old and her mother, Darcy Lincoln.

When the desperate family turned to UCI Health a few weeks later, the response was different. While UCI Health doctors also said they were baffled by the symptoms, they assured the family they would figure out what was wrong. Led by Dr. Kenneth J. Chang, executive director of the UCI Health Digestive Health Institute (DHI), the team asked probing questions and ordered a range of diagnostic tests.

"Dr. Chang gave me so much hope that they were going to get to the bottom of things and find out what was wrong with me," says Kayden, now 17 and a senior at Orange Lutheran High School in the City of Orange.

As an academic medical system, UCI Health caregivers are accustomed to seeing patients who have been searching for months or years for answers to mysterious medical symptoms.

Kayden, who was ultimately diagnosed with a rare disorder called median arcuate ligament syndrome (MALS), was seen first by Chang at DHI — one of the few medical institutions in the nation and the only one in Orange County to provide comprehensive, state-of-the-art care for the full range of digestive diseases. He then referred her to the vascular surgery team, which partnered with gastrointestinal laparoscopic surgeons.

"This is a very complex case best suited for a university medical center," says Dr. Nii-Kabu Kabutey, chief of the UCI School of Medicine's Division of Vascular & Endovascular Surgery. "For patients with rare and complex conditions like Kayden's, we hold an interdisciplinary conference with interventional doctors, vascular radiologists and vascular surgeons. We review the case together."

Kayden was a healthy, active teenager — a competitive volleyball player — when her lifelong issues with a sensitive stomach grew worse in spring 2020. She had trouble keeping food down and experienced belching, pain and weight loss. Soon her long blond hair began falling out.

In December, she saw her family nurse practitioner who ordered tests and referred Kayden to a pediatric gastroenterologist. That doctor ordered an endoscopy to look at Kayden's colon and esophagus and concluded nothing was wrong.

When the doctor sent her home and advised her to do jumping jacks, Kayden was distraught. She had lost almost 20 pounds since the summer. "I thought I was just going to feel bad for the rest of my life and would have to force-feed myself," she says.

A family friend, however, had some advice for the Lincoln family. A supporter of Chang's research and DHI, she connected Kayden with Chang's office. He saw the desperately ill young patient early in the morning on Jan. 4 — his first appointment after the holidays.

"He asked so many questions," Darcy Lincoln says of Chang. "It was so fascinating because you know it was with the intent of hearing and listening. For me, that was the whole turning point for my daughter."

Chang had several theories about what could be wrong and he ordered multiple tests, including a magnetic resonance angiogram (MRA). A sharp-eyed radiologist noticed that Kayden's celiac artery, which channels blood to the gastrointestinal organs and lower body, appeared as a thin white line, indicating abnormally low blood flow.

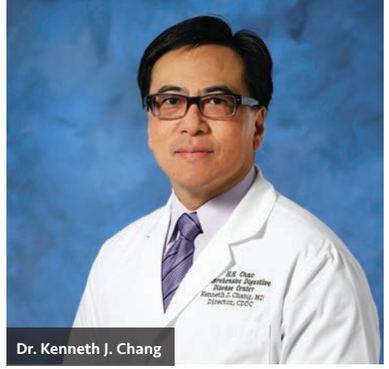
> "Dr. Chang gave me so much hope that they were going to get to the bottom of things and find out what was wrong with me."

MALS, which is rare in adults and even more unusual in pediatric patients, involves a defect in a ligament just below the diaphragm. The abnormal ligament squeezed the celiac nerves and artery, limiting the blood supply to Kayden's stomach. When she ate, the lack of blood flowing to the stomach and intestines triggered intense pain, belching and vomiting.

Chang referred her to Kabutey for surgery to free the celiac artery and nerve bundle. Hesitant to perform open surgery on a teenager — a procedure that would leave her with a scar from her chest to her abdomen — Kabutey enlisted the help of gastrointestinal surgeon Dr. Marcelo W. Hinojosa. He was able to perform the operation laparoscopically through tiny incisions and release the encased celiac artery.

"It was a team approach," Kabutey says. "We made her aware of all the options.

Kayden Lincoln, now healthy, starts her senior year.



Dr. Kenneth J. Chang

Dr. Marcelo W. Hinojosa

Dr. Nii-Kabu Kabutey

We had her best interests at heart."

Avoiding a long scar on her body appealed to Kayden as well as her doctors. "Minimally invasive surgery allows a faster recovery and better cosmetic results," Hinojosa says. "It also gives the surgeon better visualization, especially working in that area of the abdomen."

The surgery on Feb. 24 unfolded according to plan. Kayden knew everything was fine when she awoke hungry. "I was a little scared at first," she says. "I had grown afraid of food."

Today she is intent on regaining the lost weight as well as her strength by hiking and working out at the gym. She has started her senior year and soon will be completing college applications. A future in healthcare may be in store.

"I've wanted to be in the medical field most of my life," Kayden says. "After going through this, I feel this is what I'm meant to do. I want to give people hope like the UCI doctors did for me."

Kayden's medical team is equally pleased by her outcome, noting that UCI Health truly has the expertise to treat such rare and challenging cases.

"This is a syndrome that really requires a team effort," Hinojosa says. "Once we think a patient may have median arcuate ligament syndrome, they are evaluated by a number of teams at UCI Health. There's no need to go anywhere else."

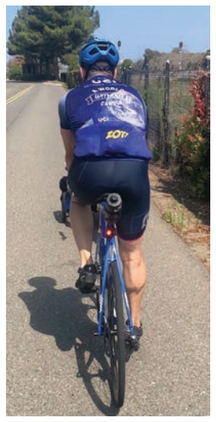
Some people with MALS endure years with painful symptoms and misdiagnosis, Hinojosa says. "Many patients have met with multiple doctors before they reach us. Sometimes we are their last hope." ■

Learn more about our digestive health expertise at ucihealth.org/dhi

ANOTHER SUCCESSFUL ANTI-CANCER CHALLENGE

The 2021 UCI Health Anti-Cancer Challenge raised $404,000 to support lifesaving research at the UCI Health Chao Family Comprehensive Cancer Center, one of only 51 such National Cancer Institute-designated U.S. cancer centers.

This year, 76 teams and 760 participants signed up to ride, walk or run, raising money for innovative cancer research. Since the first challenge in 2017, nearly 10,000 registered participants have helped fund more than $2.6 million in research grant awards. Their contributions have advanced more than 60 promising cancer pilot studies and early-phase clinical trials.



HEALTH CLASSES

Improve your well-being and prevent disease with our health classes. Most are free, but some do have fees. All classes are being held online via Zoom until further notice. Registration is required. All classes are one session unless otherwise noted. For more information, visit ucihealth.org/events or call 657-282-6357.

ACUPRESSURE FOR LABOR PAIN
Oct. 14, Nov. 10, Dec. 9, Jan. 13, Feb. 10 | 7–8 p.m.

ADVANCE DIRECTIVES
Nov. 4 | Noon–1:30 p.m.

BREASTFEEDING
Oct. 7, Nov. 4, Dec. 2 | 6–9 p.m.

HEALTHY LIVING
English: Oct. 12, Oct. 26, Nov. 9, Nov. 23, Dec. 7, Dec. 21 | 3–4 p.m.
Spanish: Oct. 12, Oct. 26, Nov. 9, Nov. 23, Dec. 7, Dec. 21 | 2–3 p.m.

JOINT REPLACEMENT, HIP OR KNEE
Every Thursday, except holidays
11 a.m.–noon

LIVING WELL WITH HEART FAILURE
Nov. 9 | 4–5 p.m.

MEDITATION FOR HEALTH (four classes)
Nov. 1, 8, 15, 22 | 6:30–7:30 p.m.

MEDITATION: BODY SCAN RELAXATION
Dec. 6 | 6:30–7:30 p.m.

MEDITATION: BREATHING
Oct. 18 | 6:30–7:30 p.m.

NEWBORN CARE
Oct. 13, Nov. 10, Dec. 8 | 6–8 p.m.

PREPARED CHILDBIRTH (five classes)
Mondays | 6–9 p.m.
Oct. 4, 11, 18, Nov. 1, 8
Tuesdays | 6–9 p.m.
Nov. 2, 9, 16, 23, 30

Dec. 7, 14, 21, 28, Jan. 4
Thursdays | 6–9 p.m.
Nov. 11, 18, Dec. 2, 9, 16
Dec. 30, Jan. 6, 13, 20, 27

PREPARING FOR SURGERY — MIND, BODY AND SPIRIT
Nov. 1, Dec. 6 | Noon–1:30 p.m.

STOP THE BLEED
English: Nov. 10 | 2–3 p.m.
Spanish: Oct. 13, Dec. 8 | 1–2 p.m.

STROKE PREVENTION
English: Nov. 17, Jan. 26 | 4–5 p.m.
Spanish: Nov. 16, Jan. 25 | 4-5 p.m.
To register, call 866-STROKE-3 (866-787-6533).

TALK SAVES LIVES (Suicide Prevention)
English: Nov. 10 | 1–2 p.m.
Spanish: Oct. 13, Dec. 8 | 1–2 p.m.

UNDERSTANDING WEIGHT LOSS AND BARIATRIC SURGERY
Oct. 19, Nov. 16, Dec. 21 | 6–7 p.m.

MEDICARE EDUCATION CLASSES

Join a virtual class on Medicare insurance plans, including Part D drug plans, that UCI Health will participate in for 2022:

Oct. 8, 13, 22, Nov. 3, 23 | 10–11 a.m.
Oct. 12, 21, 27, Nov. 17, 30 | 5–6 p.m.

Becoming Medicare-eligible in 2022? Learn the A, B, C & Ds of coverage.

Jan. 12, 26 | 5–6:30 p.m.

Register at ucihealth.org/medicare or call 714-456-2210.

EVENTS

UCI Health and UCI are proud to sponsor community events that provide information about a variety of health conditions. Due to COVID-19, most of our lectures and events are being held virtually.

NEWPORT BEACH LIBRARY SERIES 'MEDICINE IN OUR BACKYARD'

Oct. 25, 4 p.m. | Mental health and adults, speaker to be named.

Nov. 15, 4 p.m. | Advances in men's health and prostate cancer, David Lee, MD

Email kupshaw@nbplf.foundation or call 949-717-3818 for the Zoom link.

GAVIN HERBERT EYE INSTITUTE COMMUNITY LECTURE

Nov. 16, 7 p.m. | Vision therapies for keratoconus, Marjan Farid, MD;
The latest in contact lens technology, Thanh Mai, OD, FSLS

Visit www.eye.uci.edu/lectureRSVP.html to register for this online event.
To learn more, email ghei@uci.edu or call 949-824-7243.

SUE & BILL GROSS STEM CELL CENTER COMMUNITY SEMINAR

Jan. 27 | Regenerative Medicine: New Approaches to Healthcare, Anthony Atala, MD, director, Wake Forest Institute for Regenerative Medicine.

This free lecture will begin at 7 p.m. at the Irvine Barclay Theatre. For more information or to register, email stemcell@uci.edu or call 949-824-3990.

SUPPORT GROUPS

ADVANCED HEART FAILURE & VAD SUPPORT GROUP
714-456-7514

BARIATRIC SURGERY SUPPORT GROUP
714-456-6185

BLADDER CANCER SUPPORT GROUP
714-456-2846

BRAIN INJURY SUPPORT GROUP
714-509-2524

BRAIN TUMOR SUPPORT GROUP
714-456-5812

BURN SURVIVORS SUPPORT GROUP
714-456-7437

CHRONIC LYMPHOCYTIC LEUKEMIA
tevans@cllsociety.org

HEAD AND NECK CANCER SUPPORT GROUP
714-509-6311

INFLAMMATORY BOWEL DISEASE SUPPORT GROUP
714-456-7057

KOREAN WOMEN'S CANCER SUPPORT GROUP
714-456-8319

LOW VISION SUPPORT GROUP
949-824-9771

MULTIPLE MYELOMA SUPPORT GROUP
800-452-2873, ext. 233

NORMAL PRESSURE HYDROCEPHALUS (NPH)
714-456-6966

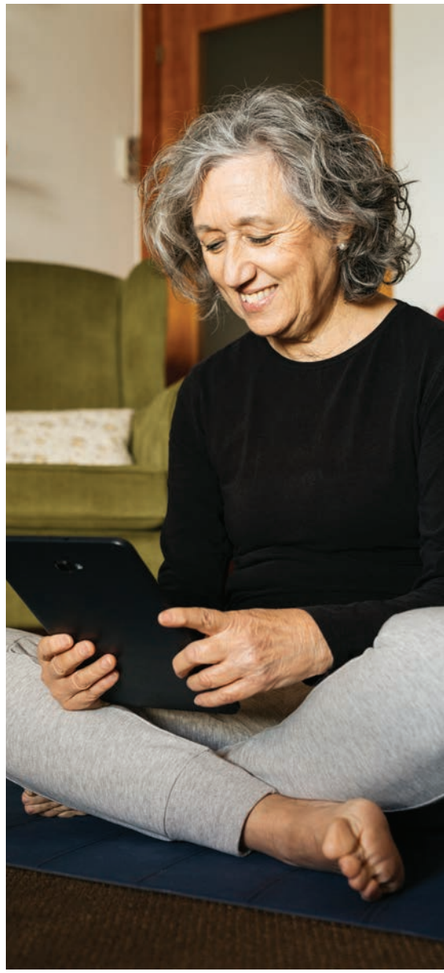
PANCREATIC CANCER SUPPORT GROUP
714-456-7057

STROKE SUPPORT GROUP
866-STROKE-3 (866-787-6533)

TRIGEMINAL NEURALGIA ASSOCIATION
714-730-1600

OSTOMY ASSOCIATION OF ORANGE COUNTY
714-637-7971

To learn more about our support groups, call the numbers listed or visit ucihealth.org/events



Melissa Der Manouel found help for incontinence at UCI Health.

PHOTO BY AMBIENT ART PHOTOGRAPHY

FREED FROM INCONTINENCE BY AN IMPLANT

Melissa Der Manouel suffered for years from urinary and fecal incontinence and the limits that imposed. She quit her Pilates classes and long walks due to her perpetual need to use a restroom. She turned down most social invitations and worried that she was becoming a recluse. In October 2018, under the care of UCI Health urogynecologist Dr. Felicia Lane, Der Manouel joined a two-year study and became the first U.S. patient to receive the Axonics® sacral neuromodulation (SNM) implant. The miniature device works by sending mild electrical pulses to nerves that help control bladder and bowel function. The study's results, published this year by Lane and her team, were overwhelmingly positive — 93% of the 129 patients experienced significant relief. Today Der Manouel, 56, a retired pharmaceutical company district manager who lives in Fresno, is thrilled to have her life back.

"My incontinence issues started about 20 years ago, shortly after I gave birth to my second child. People can't imagine how embarrassing and frustrating incontinence is and how much it affects your life. I don't know if depressed is the right word, but it does dampen your mood and how you feel. So many things just come to a halt. I even missed my kids' sporting events because I couldn't sit through them without getting up all the time.

Nine years ago, I had another type of implant, but it didn't have a rechargeable battery, and the battery had already been replaced twice. I didn't want to continue replacing it every few years. Then I found out I could become the first person in the United States to receive the new Axonics implant, which has a rechargeable battery that lasts up to 15 years.

The procedure was performed under local anesthesia. And the best part was that it took less than 30 minutes to remove the old device and 30 minutes to implant the new one. The new device is slightly larger than a quarter. I don't even feel it. There are no wires. It works on a battery, and you charge it like a phone.

My whole world opened up. Without the implant, driving 500 miles round trip from Fresno to Orange County, I'd have to keep stopping to use a restroom. Now driving one way, I don't have to stop even once. After I had the implant, I went to a medical conference with another woman who also was in the study. We were both amazed that we could be there and not have to dash to the bathroom constantly.

I'm beyond grateful to Dr. Lane and all my UCI Health doctors. They are fabulous. They gave me my life back. And I feel like a million bucks. So many women live with this issue. It's embarrassing so we don't talk about it.

Every time I see one of the ads for incontinence products like pads and adult diapers, I'm sad because there are so many people who don't know this implant is an option. I'm happy to talk about my experience. If it helps other women, then it's worth it."

— Melissa Der Manouel

Learn more about urogynecology care at ucihealth.org/urogyn

UCI Health

333 CITY BLVD. WEST, SUITE 1250
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NCI Designated Comprehensive Cancer Center

MAGNET RECOGNIZED AMERICAN NURSES CREDENTIALING CENTER

NATIONALLY RECOGNIZED A LEAPFROG HOSPITAL SAFETY GRADE STRAIGHT As 2012-2021

CONNECT WITH US

ucihealth.org

Coming October 2021

NEW PRIMARY AND SPECIALTY CARE

UCI Health — Newport Beach MacArthur, our newest medical complex, will provide unparalleled care in:

- Cardiology
- Dermatology
- Gastroenterology
- Primary care
- Rheumatology
- Women's health

From routine annual screenings to treatment for complex conditions, we STOP AT NOTHING to deliver the best care possible to the people of Orange County and beyond.

4000 MacArthur Blvd., Suite 110, Newport Beach, CA 92660

To learn more or to make an appointment, visit ucihealth.org/macarthur or call 949-445-8768.

UCI Health